

## Patent Abstracts of Japan

PUBLICATION NUMBER : 10290543  
PUBLICATION DATE : 27-10-98

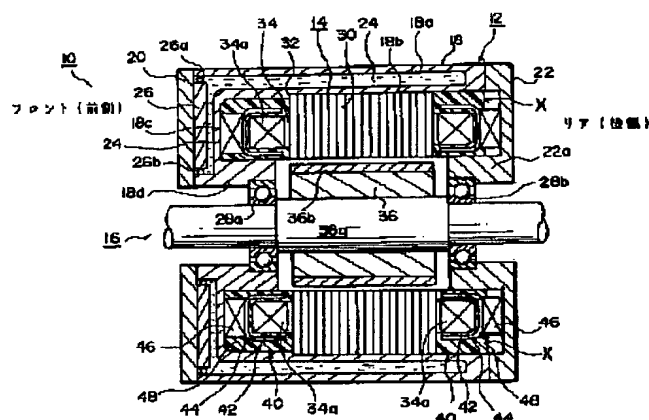
APPLICATION DATE : 15-04-97  
APPLICATION NUMBER : 09097683

APPLICANT : TOYOTA MOTOR CORP;

INVENTOR : NAGAMATSU SHIGETAKA;

INT.CL. : H02K 3/24 H02K 3/38 H02K 9/22

TITLE : MOTOR



ABSTRACT : PROBLEM TO BE SOLVED: To improve the heat radiating characteristic of the stator coil of a motor.

SOLUTION: The heat which is generated from the stator coil 34 of a motor when the motor is operated is transferred to a motor housing 12 from the coil end 34a of the coil 34 through an insulating resin layer 42, a coil end cover 44 made of copper, and a heat transferring jacket 24 made of copper and having a wavy cross section and further transferred to the cooling water contained in a water jacket 24. Since most of the heat transferring route between the coil end 34a and motor housing 12 is made of the nonmagnetic metal, the heat radiating characteristic of the motor is improved and the heat generation, etc., by an eddy current in the spacer 46 does not occur. In addition, the dimensional variation of the coil end 34a can be cancelled by the deformation of the spacer 46.

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PUBLICATION NUMBER : 08223866  
PUBLICATION DATE : 30-08-96

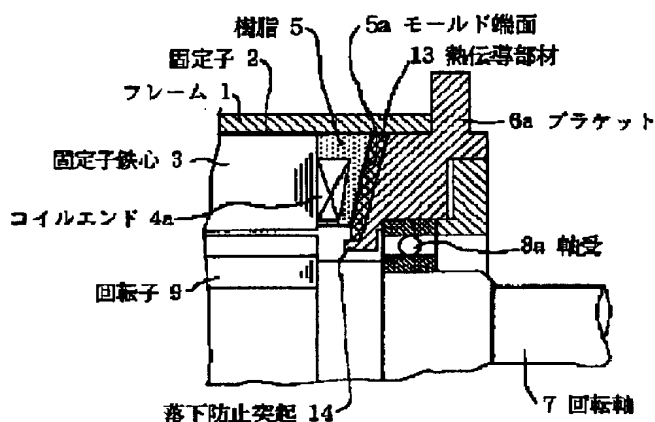
APPLICATION DATE : 17-02-95  
APPLICATION NUMBER : 07053601

APPLICANT : YASKAWA ELECTRIC CORP;

INVENTOR : YAHARA HARUKI;

INT.CL. : H02K 9/22 H02K 5/08

TITLE : MOLD MOTOR



**ABSTRACT :** PURPOSE: To improve a heat conductivity while the gap between a mold end surface and a bracket and the shape are not required of a high precision by a method wherein a heat conducting member is held between the mold end surface and the inner end surface of the bracket.

CONSTITUTION: A heat conducting member 13 is made of the composition of thin and fine wire shape metal and is formed into an annular shape and is expanded/contracted freely. On the load side, the heat conducting member 13 is placed on the inner end surface of a bracket 6a in which a rotary shaft 7 and a rotor 9 are incorporated and inserted into a frame 1 but is put on a fall-preventive protrusion 14 provided on the inner circumference of the inner end surface of the bracket 6a so as not to slip down. While the heat conducting member 13 is put on the fall-preventive protrusion 14, the bracket 6a is pushed into the frame 1 so as to compress the heat conducting member 13 by the end surface of a mold 5a and the inner end surface of the bracket 6a and the bracket 6a is mated and fixed. As a result, even if the dimensional precision of the gap between the mold end surface and the inner end surface of the bracket 6a and the shape precision are not high, the heat conduction from the mold end surface to the bracket can be satisfactory.

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 PUBLICATION DATE : 11-03-86

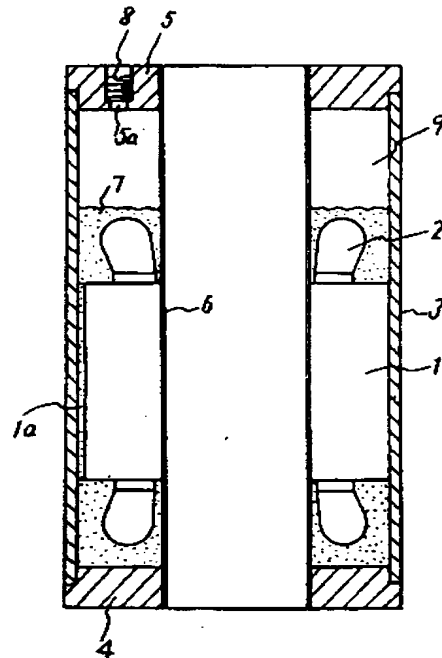
APPLICATION DATE : 18-08-84  
 APPLICATION NUMBER : 59172042

APPLICANT : MITSUBISHI ELECTRIC CORP;

INVENTOR : INAO HIROSHI;

INT.CL. : H02K 9/22 H02K 5/132

TITLE : STATOR FOR CANNED MOTOR



**ABSTRACT :** PURPOSE: To obtain a stator which is excellent in working property at the time of production and can effectively radiated the generated heat of a stator winding, by sealing insulation liquid to be heat medium in a space section in a stator frame so that said liquid may be provided in contact with the stator core and stator winding.

CONSTITUTION: A stator core 1 is wound up with a stator winding 2, and the stator for a canned motor is provided with a can 6 arranged at the inner diameter section of the winding and with a stator frame 3 outside the can, and insulation liquid 7 for heat medium is sealed so that said liquid may be provided in contact with the stator core 1 and stator winding 2 in the stator frame 3. So far as the insulation liquid 7 is concerned, fluoric inert liquid or the like which is excellent in electric insulating property and thermal conductivity is effective. As a result, the liquid 7 is gasified with the generated heat of the stator winding 2, and after the radiation in an upper space 9, the cycle for the gasification is repeated, thereby said liquid is excellent in radiation effect, and in working property because labor only for sealing the liquid is required.

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